Abstracts

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and other treponematoses (clinical and therapy; serology and biological false-positive phenomenon; pathology and experimental) Gonorrhoea (clinical; microbiology; therapy) Chlamydial infections Non-specific genital infection Reiter's disease

Trichomoniasis Candidosis Genital herpes Other sexually transmitted diseases Public health and social aspects Miscellaneous

Syphilis and other treponematoses (clinical and therapy)

Nodular secondary syphilis

WR GRAHAM AND M DUVIC (Duke University Medical Center, Durham, North Carolina, USA). Arch Dermatol 1982; 118: 205.

Early syphilis with liver involvement

DS KEISLER, W STARKE, DJ LOONEY, AND WW MARK jun (Letterman Army Medical Center, San Francisco, CA, USA). JAMA 1982; 247: 1999-2000.

A 27-year-old homosexual man was admitted to hospital with epigastric pain and abnormal liver function tests. There was also a generalised faint parafollicular rash and generalised painless lymphadenopathy. Six months earlier he had been treated for gonorrhoea, and at that time his VDRL test had been negative.

A liver biopsy showed a treponeme in the portal tracts with generalised portal tract inflammation. After this had been performed, a positive VDRL titre of 64 was obtained. He was treated with two injections of benzathine penicillin 2.4 megaunits one week apart. One week later the liver function tests were less abnormal and after four months were completely normal.

G D Morrison

Syphilis (serology and biological false-positive phenomenon)

Evaluation of the microenzyme-linked immunosorbent assay with Treponema pallidum antigen

V POPE, EF HUNTER, AND JC FEELEY (Center for Disease Control, Atlanta, Georgia, USA). J Clin Microbiol 1982; 15:630-4.

Serodiagnosis of syphilis by an enzymelinked immunosorbent assay for IgG antibodies against Reiter treponeme

NS PEDERSEN, CS PETERSEN, M VEJTORP, AND NH AXELSEN (Statens Seruminstitut, Copenhagen, Denmark). Scand J Immunol 1981: 15: 341-8.

Syphilis (pathology and experimental)

The outer membrane of Treponema pallidum: solubilisation by detergents to release axial filaments

CW PENN AND J LICHFIELD (University of Birmingham, Birmingham, UK). FEMS Microbiol Lett 1982; 14:61-4.

Isolation and transportation of Treponema pertenue in golden hamsters

SL LISKA, PL PERINE, EF HUNTER, ET AL (Center for Disease Control, Atlanta, Georgia, USA). Current Microbiol 1982; 7:41-4.

To obtain fresh isolates of T pertenue one of the authors took CB/Ss LAK strain female hamsters to Ghana where six animals were directly inoculated from patients with papillomatous yaws lesions. Inoculation was by intradermal injection in the left inguinal area. At the time of the report (one year later) only three animals had developed lesions with an incubation period of between 53 and 110 days. One strain has since been lost, and two others are still being maintained at the CDC Atlanta. These strains had been obtained in case the strains collected 20 years earlier had undergone antigenic change. (British readers should note that the anti-rabies regulations would not permit this method of transporting T pertenue).

S I Egglestone

Experimental syphilitic orchitis in rabbits: ultrastructural appearance of Treponema pallidum during phagocytosis and dissolution by macrophages in vivo

S SELL, S BAKER-ZANDER, AND HC POWELL (University of California, San Diego, California, USA). Lab Invest 1982; 46: 355-64.

Expression of Treponema pallidum antigens in Escherichia coli

AM WALFIELD, PA HANFF, AND MA LOVETT (University of California, Los Angeles, USA). Science 1982; 216: 522.

Surface-associated antigens of *Treponema* pallidum concealed by an outer inert layer CW PENN AND JG RHODES (Department of Microbiology, University of Birmingham, Birmingham, UK). *Immunology* 1981; 46: 9-16.

Immune complexes in experimental Treponema pallidum infection in rabbits SM MARET, AS RAUCHBACH, AND JF FOLDS (University of North Carolina, Chapel Hill, N Carolina, USA). J Clin Lab Immunol 1982; 8: 47-50.

Isolation and characterisation of TR-c, an antigen of the Reiter treponeme precipitating with antibodies in syphilis CS PETERSEN, NS PEDERSEN, AND NH AXELSEN (Statens Seruminstitut, Copenhagen, Denmark). Scand J Immunol 1982; 15:459-66.

Murine monoclonal antibodies specific for virulent *Treponema pallidum* (Nichols) SM ROBERTSON, JR KETTMAN, JN MILLER, AND MV NORGARD (University of Texas Health Science Center, Dallas, Texas, USA). *Infect Immun* 1982; 36: 1076-85.

In-vitro cultivation of Treponema pallidum: independent confirmation SJ NORRIS (School of Medicine, University of California, San Diego, USA). Infect Immun 1982; 36: 437-9.

Ability of macrophages to process and present *Treponema pallidum* Bosnia A strain antigens in experimental syphilis in Syrian hamsters

O BAGASRA AND I DAMJANOU (Hahnemann Medical College and Hospital, Philadelphia, Pennsylvania, USA). *Infect Immun* 1982; 36: 176-83.

Gonorrhoea (clinical)

Disseminated gonococcal infection MI BOWMER, I LEGGAT, AND JA BARROWMAN (Memorial University of Newfoundland, St Johns, Newfoundland, Canada). Can Med Assoc J 1982; 126: 118-9.

The authors report a case of disseminated gonococcal infection in a 17-year-old woman with gonorrhoea presenting with

fever, rash, joint effusions, and tenosynovitis. She was successfully treated with five million units of aqueous crystalline penicillin intravenously every six hours for three days followed by 500 mg ampicillin four times daily for seven days.

Including this case there have been six cases of disseminated gonococcal infection noted in Newfoundland between 1975 and 1979 and a total of 3307 reported cases of gonorrhoea, that is, in only 0.18%.

R R Willcox

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Ophthalmia neonatorum caused by penicillinase-producing *Neisseria* gonorrhoeae

HS RAUCHER, AJ NEWTON, AND RH STERN (Mount Sinai Hospital, New York, USA). *J Pediatr* 1982;**100**:926-6.

The authors report the history of a 19-dayold boy who had been delivered vaginally and received a prophylactic injection of 50 000 units of penicillin G a few minutes after birth. A slight monocular discharge was noted on the third day of life which yielded Staphylococcus epidermidis on culture. Treatment was given with sulfisoxazole ophthalmic drops but a severe ophthalmia ensued. Smears and culture (Phadebact coagglutination method) showed Neisseria gonorrhoeae. Treatment was then given with penicillin G 100 000 units/kg/day intravenously, plus frequent saline lavage and penicillin drops which, although apparently controlling the discharge, failed in respect of lid oedema and hyperaemia.

The Neisseria gonorrhoeae proved to be penicillinase-resistant and treatment was changed to gentamicin ophthalmic drops for five days, cefazolin intravenously for two days followed by cephalexin orally for three days with good results. Early in pregnancy the mother's cervical culture was negative for Neisseria gonorrhoeae. The father had visited Acapulco, Mexico, two months before the birth of the child. This is the first failure of intramuscular penicillin prophylaxis of gonococcal ophthalmia neonatorum at this institution.

R R Willcox

(Reprinted from Abstracts on Hygiene by permission of the Editor).

Primary cutaneous Neisseria gonorrhoeae infections

MJ SCOTT AND MJ SCOTT (Seattle Dermatological Center, Seattle, USA). Arch Dermatol 1982;118:351-2.

Twenty-three cases of gonococcal arthritis MC DELAUCHE, MF KHAN, AND A RYCKEWAERT (Hôpital Bichat, Paris, France). Nouv Presse Med 1982;11:1309-10.

The gonococcal arthritis-dermatitis syndrome: a case report

MD HURWITZ, MU CATCHPOLE, AND M PLIT (J G Strijdom Hospital, Johannesburg, S Africa). S Afr Med J 1982;61:555-6.

The pharynx as the only positive culture site in an adolescent with disseminated gonorrhoea

GM CRAMOLINA AND IF LITT (Department of Paediatrics, University of Stanford, California, USA). *J Pediatr* 1982;100: 644-6.

A 14-year-old boy presented with sore throat and severe pain in the left knee, left elbow, and scapula, which restricted motion and prevented ambulation. Although his temperature was 37.2°C after admission and three vesicular-pustular lesions appeared on the back, he denied any previous fever or rash or recent heterosexual or homosexual contact.

Cultures from blood, urethra, pharynx, and anus were made on Transgrow medium. Only the throat cultures were positive for Neisseria gonorrhoeae. The evaluation of a teenager with arthritis or tenosynovitis should always include cultures for gonococci not only from the genitals, blood, joint fluid, and anus but also from the pharynx.

The patient was successfully treated with penicillin G intravenously 10 million units a day in four-hourly doses for three days followed by ampicillin by mouth 500 mg four times daily for one week.

R R Willcox

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Gonorrhoea (microbiology)

Variant pili of autoagglutinating Neisseria gonorrhoeae

VY PERERA, CW PENN, AND H SMITH (Department of Microbiology, Birmingham University, Birmingham, UK). FEMS Microbiol Lett 1982; 13:313-6.

Purification and partial characterisation of the major outer membrane protein of Neisseria gonorrhoeae

MS BLAKE AND EC GOTSCHLICH (Rockefeller University, New York, USA). *Infect Immun* 1982; 36: 277-83.

Epidemiology of penicillinase-producing *Neisseria gonorrhoeae* infection: analysis by auxotyping and serogrouping

AL (Harborview Medical Center, University of Washington, Seattle, USA). N Engl J Med 1982; 306:950-4.

Comparison of methods for the immunological identification of *Neisseria* gonorrhoeae in clinical specimens using commercially obtained reagents

LF FREUNDLICH, SL ROSENTHAL, FP HOCHBERG, AND MR TROGELE (Bronx Municipal Hospital Center, Bronx, New York, USA). Am J Clin Pathol 1982; 277: 456-8.

Bactericidal and bacteriostatic antigonococcal antibodies produced by urogenital staphylococci

L LAFOND, JG BISSAILLON, SA SAHEB, ET AL (University of Quebec, Quebec, Canada). *Microbios* 1982; 33: 27-34.

Effect of anti-pilus antisera on virulence of variants of *N gonorrhoeae* for cultured epithelial cells

M VIRJI, JS EVERSON, AND PR LAMBDEN (Department of Microbiology, Southampton General Hospital and Medical School, Southampton, UK). *J Gen Microbiol* 1982; 128: 1095-100.

Pyocin-resistant lipopolysaccharide mutants of *Neisseria gonorrhoeae*: alterations in sensitivity to normal human serum and polymixin B

LF GUYMON, M ESSER, AND WM SHAFER (University of North Carolina School of Medicine, Chapel Hill, NC, USA). *Infect Immun* 1982; 36: 541-7.

High correlation of the presence of methyladenine in *Neisseria gonorrhoeae* DNA with the AHU auxotype

AB KOLODKIN, VL CLARK, FC TENOVER, AND FE YOUNG (Department of Microbiology, University of Rochester, Rochester, NY, USA). Infect Immun 1982; 36: 586-90.

Interactions of *Neisseria gonorrhoeae* with human neutrophils: effects of serum and gonococcal opacity on phagocyte killing and chemiluminescence

RF REST, SH FISCHER, ZZ INGHAM, AND JF JONES (University of Arizona, Tucson, Arizona, USA). *Infect Immun* 1982; 36: 737-44.

Gonococcal arthritis-dermatitis syndrome: study of serum and synovial fluid immune complex levels

DH MANICOURT AND S ORLOFF (University of Miami, Florida, USA). Arthritis Rheum 1982; 25: 544-8.

Induction of leukochemotaxis, primary skin inflammation and local Schwartzman reaction by Neisseria gonorrhoeae extract K SVEEN AND JA MAELAND (Gade Institute, University of Bergen, Bergen, Norway). Acta Pathol Microbiol Scand (B) 1982; 90: 1-6.

Improved medium for the transport of gonococcal specimens

P SANDVEN, O SOLBERT, K ØDEGAARD, AND G MYARE (National Institute of Public Health, Oslo, Norway). Acta Pathol Microbiol Scand (B) 1982; 90:73-8.

Demonstration of antigenic heterogenicity of Neisseria gonorrhoeae pili antigens using human sera in the test system K REIMANN, AP ORANJE, AND MF MICHEL (Erasmus University, Rotterdam, The Netherlands). Acta Pathol Microbiol Scand (C) 1981; 90: 47.

Gonococcal pili-safety and immunogenicity in humans and antibody functions in vitro M SIEGEL, D OLSEN, C CRITCHLON, AND TM BUCHANAN (United States Public Health Service Hospital, Seattle, WA, USA). J Infect Dis 1982; 145: 300-10.

Laboratory diagnosis of gonococcal infection by genetic transformation

LO BUTLER AND RDJ KNIGHT (St George's Hospital Medical School, London, UK). *J Clin Microbiol* 1982; **15**:810-4.

Antigenic variation of outer membrane protein II in colonial variants of *Neisseria gonorrhoeae* P9

JL DIAZ AND JE HECKELS (University of Southampton School of Medicine, Southampton, UK). *J Gen Microbiol* 1982; 128: 585-92.

Emergence of resistance after spectinomycin treatment for gonorrhoea due to β -lactamase-producing strain of Neisseria gonorrhoeae

CSF EASMON, CA ISON, CM BELLINGER, AND JW HARRIS (St. Mary's Hospital, London, UK). *Br Med J* 1982; **284**: 1604.

Antimicrobial susceptibility of Neisseria gonorrhoeae

UL MALHOTRA, R NATARAJAN, DS AGARWAL, AND R SINGH (Maulana Azad Medical College, New Delhi, India). *Ind J Med Res* 1982; 75:643-7.

Resistance to infection with the gonococcus AI BRAUDE (University of California, San Diego, California, USA). *J Infect Dis* 1982; **145**: 623-34.

Radioimmunoassay for detection of antibodies to Neisseria gonorrhoeae M USATEGUI, EV SAVARD, SM MONDABAUGH, AND NE KEICHER (Department of Diagnosti

AND NL KEIGHER (Department of Diagnostic Research, Hoffman La Roche Inc, Nutley, NJ, USA). *J Clin Microbiol* 1982; 15:1001-8.

Serological classification of *Neisseria* gonorrhoeae with monoclonal antibodies MR TAM, TM BUCHANAN, EG SANDSTRÖM, ET AL (Genetic Systems Corporation, Seattle, WA, USA). *Infect Immun* 1982; 36 1042-53.

Hybrid cells producing monoclonal antibodies against antigens of Neisseria gonorrhoeae were obtained by the polyethylene glycol-mediated fusion of NS-1 myeloma cells in culture and the lymphocytes of BALB/c mice that were immunised with gonococcal protein 1 or outer membrane (OM) proteins. Culture fluids from individual microtitre wells were tested for antigonococcal antibodies by an antibody binding (AB) assay that utilised ¹²⁵I-labelled protein A from Staphylococcus aureus Cowan strain 1. Culture fluid from 254 (10.6%) of 2400 wells (representing four different fusions) were found to contain antibodies that reacted with OM preparations from one or more gonococcal strains. Several of the monoclonal antibodies appeared to show identical specificity when tested by coagglutination (CoA) and AB assays against a limited panel of bacterial antigens. On expansion of the antigen panel, however, to include 34 gonococcal reference serotyping strains differences in the specificity of the "identical" antibodies became apparent. Sixteen phenotypically stable, independently cloned hybrid cell lines were selected for further study. Each of the cell lines produced a characteristically different monoclonal antibody which reacted in immunoprecipitation assays with a unique antigenic determinant on protein 1 of the outer membrane complex of the bacteria. Each of the antibodies reacted with a discrete subpopulation of the 34 gonococcal reference strains: patterns of antibody reactivity were similar to those previously identified in CoA assays by conventional antigonococcal polyvalent antisera. None of the monoclonal antibodies reacted with 17 non-gonococcal neisseriae or with Branhamella catarrhalis when tested by an immunofluorescence assay. The authors consider that these antibodies now provide standardised reagents for the rapid and precise serological characterisation of N gonorrhoeae; they are also potentially useful for the immunodetection of gonococci in clinical specimens or from culture. The construction of a standard nomenclature for monoclonal antibodies is discussed.

H Young

Culture medium for confirmation of penicillin-resistant and penicillinase-producing *Neisseria gonorrhoeae*

PL PERINE, WG WESTBROOK, JW BIDDLE, ET AL (University of Washington School of Medicine, Seattle, USA). J Clin Microbiol 1982; 15: 865-8.

Anaerobic survival of clinical isolates and laboratory strains of Neisseria gonorrhoeae: use in transfer and storage HB SHORT, VL CLARK, DS KELLOGG, JR YOUNG, AND FE YOUNG (University of Rochester, ROchester, NY, USA). J Clin Microbiol 1982; 15:915-9.

Reliability of the plaque assay to determine the sensitivity of *Neisseria gonorrhoeae* to the bactericidal activity of normal human serum

L ODUM (Statens Seruminstitut, Copenhagen, Denmark). Acta Pathol Microbiol Scand (B) 1982; 90: 141-4.

Studies on Neisseria gonorrhoeae strains from test-of-cure specimens: correlation between the in-vitro susceptibility to penicillin and the sensitivity to the complement-dependent bactericidal activity of normal and convalescent human serum L ØDUM AND I LIND (Statens Seruminstitut, Copenhagen, Defimark). Acta Pathol Microbiol Scand (B) 1982; 90: 145-52.

Gonorrhoea (therapy)

Comparison of spectinomycin, cefuroxime, thiamphenicol and penicillin G in the treatment of uncomplicated gonococcal infections in women

TE TUPASI, LB CRISOLOGO, CA TORRES, AND OV CALUBIRAN (University of the Philippines, Manila, Philippines). *J Infect Dis* 1982; 145:583.

Comparison of piperacillin and penicillin in the treatment of uncomplicated gonorrhoea

ML SIMPSON, MY KHAN, Y SIDDIQUI, ET AL (University of Minnesota, Minneapolis, USA). Antimicrob Agents Chemother 1982: 21:727-9.

Chlamydial infections

Pelvic inflammatory disease: etiologic studies with emphasis on chlamydial infection

H GJONNAESS, K DALAKER, G ANESTAD, ET AL (Aker Hospital, Oslo, Norway). Obstet Gynecol 1982; 59: 550-5.

Chlamydial serum IgG antibodies in patients with acute salpingitis measured by an enzyme-linked immunosorbent assay K SKAUG, ISS VIK, E QVIGSTAD, ET AL (Ulleval Hospital, Oslo, Norway). Acta Pathol Microbiol Scand (C) 1982; 90: 67-72.

Colposcopic and histologic findings in cervical chlamydial infection

J PAAVONEN, E VESTERINEN, B MEYER, AND E SAKSELA (University of Helsinki, Helsinki, Finland). Obstet Gynecol 1982; 59: 712-5.

Chlamydia trachomatis and clinical general infections: a general review

P TERHO (Department of Virology, University of Turku, Turku, Finland). Infection 1982; 10 suppl 1:5-9.

Microbiological diagnosis of *Chlamydia trachomatis* infections

KT RIPA (Department of Clinical Microbiology, Halmstad Hospital, Halmstad, Sweden). *Infection* 1982; 10 suppl 1:19-24.

Chlamydia trachomatis — serological diagnosis

JD TREHARNE (Department of Preventive Ophthalmology, Institute of Ophthalmology, London, UK). *Infection* 1982; 10 suppl 1:25-31.

Epidemiology of genital chlamydial infections

JD ORIEL (University College Hospital, London, UK). *Infection* 1982; **10** suppl 1: 32-9.

Gynaecological chlamydial infections

L WESTROM (University of Lund Hospital, Lund, Sweden). *Infection* 1982; 10 suppl 1: 40-5.

In-vitro and in-vivo efficacy of antimicrobials against *Chlamydia trachomatis*

wr Bowie (GF Strong Research Laboratories, 700 W 10th Avenue, Vancouver, BC, Canada). *Infection* 1982; 10 suppl 1:46-52.

Diagnosis and treatment of chlamydial venereal disease

I THELIN (University of Lund Hospital, Lund, Sweden). *Infection* 1982; 10 suppl 1: 53-6.

Chlamydial infection of the human cervix — an ultrastructural study

BA EVANS (Department of Genitourinary Medicine, Charing Cross Hospital, London, UK). *J Infect* 1982; 4:225-8.

An ultrastructural study of human cervical epithelium obtained by biopsy enabled the reproductive cycle of Chlamvdia trachomatis to be observed in vivo. Only columnar epithelium (not actively secretory) was subject to infection. Tissue from a patient with presumed acute infection showed inclusions in all stages of maturation and features of epithelial invasion, which included changes in the elementary body before endocytosis. Tissue from a second patient, who had presumed chronic infection, showed many more elementary bodies. These were situated both extracellularly and intracellularly, in secretions, on the epithelial surface, within vesicles, and scattered unbound in the cytoplasm of the host cell. The latter may represent intracellular persistence and promote latency of infection.

Author's summary

Three novel manifestations of Chlamydia trachomatis infection: endometritis, perihepatitis, and meningoencephalitis PA MÅRDH AND P WØLNER-HANSSEN (University of Lund, Lund, Sweden). Infection 1982; 10 suppl 1:57.

Control mechanisms governing the infectivity of Chlamydia trachomatis for HeLa cells — modulation by cyclic nucleotides, prostaglandins and calcium ME WARD AND H SALARI (University of Southampton School of Medicine, Southampton, UK). J Gen Microbiol 1982; 128: 639-50.

Infectivity of Chlamydia trachomatis in tissue culture with newborn calf serum LJ LASCOLEA AND SM BALDIGO (Childrens' Hospital, Buffalo, NY, USA). J Clin Microbiol 1982; 15: 951-3.

Non-specific genital infection

Non-gonococcal urethritis in males — a preliminary study

RA BHUJWALA, P SETH, A GUPTA, AND KB SHARMA (All India Institute of Medical Science, New Delhi, India). *Ind J Med Res* 1982; 75: 485-8.

Reiter's disease

Reiter's syndrome: a male and female disease

CM NEUWELT, B ORENSTEIN, AND RP JACOBS (George Washington University Medical Center, Washington DC, USA). *J Rheumatol* 1982; 9: 268-72.

Reiter keratitis

DB MARK AND JB McCULLEY (Eye Research Institute, Boston, MA, USA). Arch Ophthalmol 1982;100:781-4.

Trichomoniasis

Canine prostatic secretions kill Trichomonas vaginalis

JN KRIEGER AND MF REIN (University of Virginia School of Medicine, Charlottesville, Virginia, USA). *Infect Immun* 1982; 37:77-81.

The zinc content of prostatic secretions is thought to be an important non-specific defence against urinary tract infection in men. This investigation measured killing by prostatic fluid of Trichomonas vaginalis, a common sexually trasmitted pathogen, and related this activity to zinc concentration. We used a canine model which closely resembles the human male genital tract. Prostatic secretions from all dogs killed all T vaginalis isolates. There appear to be several mechanisms for killing of trichomonads by prostatic fluid. At prostatic fluid zinc concentrations comparable to those in healthy men (>3.2 mmol/l) the rate of killing of trichomonads was proportional to the zinc concentration. At intermediate zinc concentrations killing occurred by both zincdependent and zinc-independent mechanisms. A zinc-independent mechanism was responsible for antitrichomonal activity at relatively low zinc levels (<1.6 mmol/l) comparable to those in the prostatic fluid of

men with chronic prostatitis. This study suggests that the variable clinical spectrum of trichomoniasis in men may result from a balance between the zinc sensitivity of the *T vaginalis* strains on one side and the content of both zinc and zinc-independent factors in prostatic fluid on the other.

Author's summary

A rapid method for the detection of Trichomonas vaginalis

AG RIDGE (Public Health Laboratory, Withington Hospital, Manchester, UK). *Med Lab Sci* 1982; 39: 193-4.

Candidosis

The systemic treatment of recurrent vaginal candidosis: an evaluation of oral ketoconazole therapy

MJ BALSDON, N ROSEDALE, NR BLATCHFORD, AND J JONES (St Mary's Hospital, Portsmouth, Hants, UK). Curr Therap Res 1982; 31: 511-7.

Genital herpes

Severe acquired immunodeficiency in male homosexuals, manifested by chronic perianal ulcerative herpes simplex lesions FP SIEGAL, C LOPEZ, CS HAMMER, ET AL (Divisions of Clinical Immunology and

(Divisions of Clinical Immunology and Infectious Diseases, Mount Sinai Medical Center, and the Clinical Immunology and Infectious Diseases Services, Memorial Sloan-Kettering Cancer Center, New York, USA). N Engl J Med 1981; 305: 1439-44.

Four homosexual men presented with gradually enlarging perianal ulcers, from which herpes simplex virus was cultured. Each patient had a prolonged course characterised by weight loss, fever, and evidence of infection by other opportunistic micro-organisms including cytomegalovirus, Pneumocystis carinii, and Candida albicans. Three patients died; Kaposi's sarcoma developed in the fourth. All were found to have depressed cell-mediated immunity, as evidenced by skin anergy, lymphopenia, and poor or absent responses to plant lectins and antigens in vitro. Natural killer-cell activity directed against target cells infected with herpes simplex virus was depressed in all patients. The absence of a

history of recurrent infections' or of histological evidence of lymphoproliferative or other neoplastic diseases suggests that the immune defects were acquired.

Author's summary

Other sexually transmitted diseases

Lymphogranuloma venereum and acute ulcerative proctitis

RK BOLAN, M SANDS, J SCHACHTER, ET AL (Presbyterian Hospital, San Francisco, USA). Am J Med 1982; 72: 700-2.

Method for isolation of *Gardnerella* vaginalis: characterisation of isolates by gas chromatography

PA CSÁNGÓ, N HAGEN, AND G JAGARS (Central Hospital Kristiansand, Norway). Acta Pathol Microbiol Scand 1982; 90: 89-94.

Gardnerella vaginalis, anaerobes and vaginal discharge

E TAYLOR, AL BLACKWELL, D BARLOW, AND I PHILLIPS (St Thomas' Hospital, London, UK). Lancet 1982; i: 1376-8.

Venereal disease in patients with scabies JM MUNKVAD, AO NIELSEN, AND L SECHER (Municipal Hospital, Copenhagen, Denmark). Acta Derm Venereol Scand 1982; 62: 274.

Isolation and cultivation of Haemophilus ducrevi

TR OBERHOFER AND AE BACK (Madigan Army Medical Center, Tacoma, WA, USA). J Clin Microbiol 1982; 15:625-9.

Identification of *Haemophilus ducreyi* in the clinical laboratory

GN NOBRE (Institute of Bacteriology, University of Lisbon, Lisbon, Portugal). *J* Med Microbiol 1982; 15: 243-6. Some of the characteristics of 42 clinical isolates of *Haemophilus ducreyi* are reported. Only six of the 42 strains were able to grow on horse-blood agar. All strains gave a positive oxidase test with tetramethyl-phenylenediamine and a negative result with dimethyl-p-phenylenediamine. All of 15 test strains were negative in the porphyrin test. Tests for haemin requirement were inconclusive because of difficulties encountered in obtaining growth on a basal medium.

Author's summary

Comparison of culture and microscopy in the diagnosis of Gardnerella vaginalis infection

CA ISON, SG DAWSON, J HILTON, ET AL (St Mary's Hospital, London, UK). J Clin Pathol 1982; 35: 550-4.

A comparison was made between human blood agar containing amphotericin B, nalidixic acid, and either gentamicin or colistin for the isolation of Gardnerella vaginalis from cases of non-specific vaginitis seen in a clinic for sexually transmitted diseases. The medium containing gentamicin was more inhibitory for non-Gardnerella species but not sufficiently inhibitory to allow direct plating in the clinic without spreading for single colonies. The diffuse beta-haemolysis produced by G vaginalis on human but not on horse blood agar proved very useful in differentiating it from other vaginal organisms and was not affected by the antibiotics used. This characteristic, together with Gram-stain morphology, oxidase and catalase, provides a simple reliable method of identifying G vaginalis. Specimens from 60 women with symptoms of vaginitis in whom no other pathogen was isolated were examined by culture and microscopy. Gardnerella vaginalis was grown from 45 whereas only 31 had positive microscopy (clue cells or Gramvariable bacilli). There was no significant difference between the rate of isolation of G vaginalis in the group with positive microscopy (25/31) and that with negative microscopy (20/31).

Author's summary

Public health and social aspects

Syphilis control in populations previously exposed to yaws

G HART (Australian Health Commission, Adelaide, Australia). *Int J Epidemiol* 1982; 11: 181-7.

Sexually transmitted diseases seen in general practice in Northlands: a survey RJ FLIGHT (Northland Services Advisory Committee, Whangerei, New Zealand). NZ Med J 1982; 95: 217-8.

As there is no hospital-based sexually transmitted disease clinic to provide statistics in Northland, all general practitioners in the Northland health district were therefore asked to keep details of all new cases of gonorrhoea, non-specific urethritis (NSU), and syphilis seen between 26 November 1979 and 24 February 1980. Sixty-eight new cases of gonorrhoea, 39 of NSU, and two of syphilis were reported. The high male-to-female ratio for gonorrhoea and NSU of 4·2:1 indicates a need to improve contact tracing.

It is estimated that about three-fifths of sexually transmitted diseases in New Zealand is treated by general practitioners, which would give an estimated national total for gonorrhoea in 1979 of 6100 cases compared with 2484 reported by hospital clinics.

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Miscellaneous

Zoon (plasma cell) balanitis — treatment by circumcision

TS SONNEX, RPR DAWBER, TJ RYAN, AND IG RALFS (Slade Hospital, Headington, Oxford, UK). Br J Dermatol 1982; 106: 585-8.